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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

AUG 1 1991

SUBJECT: Review of the Final Draft Baseline Risk Assessment for
the ACS NPL Site, Griffith, IN

FROM: Pat Van Leeuwen, Toxicologist
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TO: Bob Swale
Remedial Project Manager

I have reviewed the revised Draft Risk Assessment for the ACS NPL site. Most of the previous comments have been adequately addressed. A few areas of the Risk Assessment are still in need of additional work; these are addressed below.

1. Comments # 188/189 and Tables 7-38 These comments are not clearly addressed in the risk assessment. Various scenarios are combined in table 7-38 in an attempt to determine the total reasonable risk to off-site children given the current land use. One combination included is the off-site resident child (10 yr to upper aquifer) plus the off-site resident adult (30 yr to lower aquifer and ambient air) plus the trespasser child (all on-site trespass exposures). This combination probably does characterize the Maximum Exposed Individuals, even though it is a somewhat novel way of doing it. A detailed explanation of how this combination was determined and highlighting of conclusions based on this combination as the RME population are needed in the text for clarification.

2. Page 50, para. 2 My comment here is the same as given in # 168. These are current observations. We cannot predict the future trespass frequency under current land use. Therefore, the statement that the assumptions overestimate the risk is as hypothetical as the assumptions themselves. This section should be changed to include the idea that current observations cannot predict future use and assumptions used in this risk assessment are an attempt to characterize a reasonable hypothetical useage.

3. Table 7-18 Where are the references for the information presented here. Need to include the source in the "notes" section.

4. Table 7-17 and related sections There are no U.S.EPA approved toxicity values for lead. No HQ can be determined for this chemical. For residential scenarios (i.e., future residential or in areas where children under the age of 6 years have access), the agency Lead Uptake/Biokinetic Model can be applied. In other cases, the risks from lead exposure should be discussed qualitatively using the OSWER Directives addressing soil lead clean-up levels under Superfund. (These are attached). Some soil levels at the site are in the range of 16,000 - 17,000 ppm. Because the soil lead levels at the ACS site exceed the 500-1,000 ppm clean-up level, clean-up of soils containing lead must be addressed in the risk assessment. Some sections of the risk assessment in need of correction are page 41 (summary, para.4), page 46, page 47, Tables 7-23, 7-24, 7-31, 7-34, 7-36 and 7-37.

5. Tables 7-2 through 7-10 The number of significant digits reported in media samples is okay, but I still question the use of so many significant digits in the mean concentration value - i.e., on page 1, total xylenes: is a mean concentration of 240252.67 ug/kg appropriate given measurements with two significant digits?

6. Tables T-3 and T-15 The model used to estimate the inhalation exposure to VOCs during showering is given in Appendix Z, not Appendix Y as stated. Please correct.

7. Table T-7 Why was the IR changed to 200 mg/day if the trespasser child age is assumed to be 5-15 years? The 200 mg/kg rate is currently applied to children aged 1-6 and 100 mg/kg is used for older children and adults. An integrated IR ($1 \times 200 + 9 \times 100$ mg/kg) would be most correct. I don't know where this change came from.

8. Table T-17 In the future land use ingestion exposure, the IR should consider that for 6/30 years the child ingestion rate applies and for 24/30 years the adult rate (both given in comment 7) is applicable. An integrated body weight for ages 0 through 30 should also be used in the calculations for this pathway.

9. Risks from the Griffin Landfill/ Appendix Y The model used here is a U.S.G.S. Model, rather than one usually used by U.S.EPA. One assumption used in the model is that the landfill was remediated and capped. This is not the current condition. The purpose of assessing future risks from the landfill area is to determine what action, if any, is needed on this part of the site. The risk assessment on the Griffith Landfill should assume "no action" taken at the site, i.e., that the current cap is not upgraded. The use of the model to generate no risk based on hypothetical actions is unacceptable. I would also like to see the infiltration to groundwater calculated using a model or method more applicable to U.S.EPA concerns. Several approaches for CERCLA sites are suggested in the Superfund Exposure Assessment Manual

(SEAM); Region V also has models that have been developed for use at other landfill sites. Expected infiltration rates, changes in percolating rainwater flow and time to breaching of the landfill are all things that are discussed in SEAM and should be considered in the assessment of groundwater contamination from the landfill area.

If you or the contractors have any questions on risk assessment methodology or need additional information during the preparation of the risk assesment report, please feel free to call me at (312) 886-4904.

I have enclosed a Critique Sheet to allow TSU to evaluate their services. Please complete it and return it to Steve Ostrodka at your earliest convenience.